

R E M A R K S

I. Introduction

In response to the pending rejection, Applicants have amended claim 1 so as to further clarify the intended subject matter of the present invention. In addition, claims 1, 2, 13 and 14 were amended so as to address the rejection thereof under 35 U.S.C. § 112, second paragraph. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that the pending claims are patentable over the cited prior art references.

II. Applicants Respectfully Submit That The Rejection Of The Claims Under 35 U.S.C. § 112 Is Overcome By Applicants' Amendment To The Same

Claims 1-4 and 13-16 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

In response to the current rejection, Applicants have amended claims 1 and 2 so as to clarify that the support layer, the deposition layer, the protective layer formed on a surface of the deposition layer, and the seal layer are distinct layers. It is noted that the foregoing is made clear from the specification and the claim language itself, as the claims expressly state that the layers are formed on top of one another. However, in order to expedite prosecution, Applicants have amended claims 1 and 2 in the manner

suggested by the Examiner.

However, with regard to the rejection concerning the phrase “a surface of the support layer” for failing to provide an antecedent basis for the term “a surface”, Applicants respectfully traverse this rejection. With regard to the rejected phase, the support layer clearly has a proper antecedent basis. The phrase in question properly introduces the element “a surface” of the support layer. It is not referred to as “the surface”, which arguably could be ambiguous. It is referred to as “a surface”, which is the textbook method of introducing new elements. The phrase in question clearly has proper antecedent basis.

It is further noted that the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those of skill in the art, then the claim is not indefinite. *Ex parte Porter*, 25 USP2d 1144, 1145 (Bd. Pat. App. & Inter. 1992).

It is respectfully submitted that the scope of the currently pending claims would be readily understood by those of skill in the art, and therefore the claims are fully compliant with the requirements of 35 U.S.C. § 112, second paragraph.

III. Rejection Of Claim 1 Under 35 U.S.C. § 102

Claim 1 was rejected under 35 U.S.C. § 102 as being anticipated by USP No. 5,866,228 to Awata. Applicants respectfully submit that the claim is patentable over

Awata for at least the following reasons.

Claim 1 relates to a vacuum heat insulator having an insulating core disposed inside of a laminate bag. The laminate bag comprises in-part a first support layer comprising a plastic film, which has a glass transition point of 87°C or higher, and a second deposition layer formed on the first support layer. Importantly, as explained for example on page 16 of the specification, by utilizing a first support layer having the recited glass transition point, when utilized at higher temperatures, the degree of thermal expansion or shrinkage of the support layer is very small, thereby preventing the cracking of the second deposition layer.

Turning to the cited prior art reference and the pending rejection, Awata discloses an insulator having a calcium silicate core 1, a first plastic film 2 comprising polyethylene terephthalate, a metal film 3 comprising aluminum foil, and a second plastic film 4 comprising polypropylene.

In the pending rejection of claims 2-3 and 13-15 set forth in paragraph 9 of the Office Action, it is acknowledged that Awata fails to disclose a polyethylene terephthalate having a glass transition temperature of 87°C or higher. Further, Awata does not appear to disclose or suggest that the cited deposition layer (i.e., the aluminum film) has a property of transmitting a high frequency magnetic field. Thus, the sole basis for asserting that Awata discloses the claimed laminate film appears to be that the laminate bag had a seal portion.

However, as this element has been deleted from claim 1, and Awata appears to fail to disclose either the first support layer, the third protective layer, or the second deposition layer recited by amended claim 1, it is respectfully submitted that Awata does not disclose the claimed laminate film.

As anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), for the foregoing reasons, it is clear that Awata does not anticipate amended claim 1.

IV. Rejection Of The Claims Under 35 U.S.C. § 103

Claims 2-3 and 13-15 were rejected under 35 U.S.C. § 103 as being obvious over USP No. 5,866,228 to Awata in view of "The Encyclopedia of Polymer Science And Engineering", Vol. 12, page 225, 1985. Applicants respectfully traverse this rejection for at least the following reasons.

As recited by the rejected claims, ***the recited first support layer comprises a plastic film having a glass transition point of 87°C or higher***. As noted above, by utilizing a first support layer having the recited glass transition point, when utilized at higher temperatures, the degree of thermal expansion or shrinkage of the support layer is very small, thereby preventing the cracking of the second deposition layer.

Turning to the pending rejection, it is noted that Awata fails to disclose the

foregoing aspect of the claimed invention. The "Encyclopedia of Polymer and Science" is cited as teaching a PET film having a glass transition temperature of 87°C or higher, and it is summarily concluded that it would have been obvious to combine the two references in order to provide a "commercial grade" polyethylene terephthalate. Applicants respectfully submit that this rejection is in error for at least the following reasons.

First, the "Encyclopedia of Polymer and Science" discloses a PET film having a glass transition temperature range which is 67°C to 140°C. Thus, even assuming there was proper motivation to combine these two references, the combination does not necessarily result in the claimed invention. Indeed, it is possible that the resulting combination would utilize a PET film having a glass transition temperature which is lower than 87°C, as the reference discloses a possible range as low as 67°C.

It is well known that in order to establish a *prima facie* case of obviousness, each and every limitation of the claimed invention must be disclosed or suggested by the cited prior art (see, M.P.E.P. § 2143.03). In the instant case, it is clear that this requirement is not met because the combination does not necessarily result in the use of a PET film having a glass transition temperature of 87°C or higher. Moreover, neither of the references even appear to acknowledge the problem avoided by the present invention by utilizing a PET having the claimed glass transition temperature. As such, for this reason alone, claims 2 and 13 are patentable over the cited prior art

references.

Furthermore, the motivation cited for combining the references is also flawed. It is submitted that the combination is proper because one of skill in the art would be motivated to provide a commercial grade polyethylene terephthalate film. However, there does not appear to be any suggestion in Awata that the device disclosed therein is not commercial available. Nor does there appear to be any suggestion that the polyethylene terephthalate film of Awata is deficient in some manner. Accordingly, there is simply no motivation to make the proposed modification of Awata absent reference to the Applicants' claimed invention, which is clearly impermissible.

Indeed, in order to establish the requisite motivation, the Examiner must point to a **source** in the applied prior art for each claim limitation and a source in the applied prior art for the requisite motivational element. *Smiths Industries Medical System v. Vital Signs Inc.*, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999). More to the point, the Examiner is required to make a "thorough and searching" factual inquiry and, based upon that factual inquiry, explain why one having ordinary skill in the art would be realistically impelled to modify particular prior art, in this case the **particular** device disclosed by Awata, to arrive at the claimed invention. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). Such a factual inquiry requires clear and particular factual findings as to a specific understanding or specific technological principle which would have realistically impelled one having ordinary skill in the art to

modify the **particular** device disclosed by Awata to arrive at the claimed invention.

Ruiz v. A.B. Chance Co., 234 F.3d 654, 57 USPQ2d 1161 (Fed. Cir. 2000); *Ecolochem Inc. v. Southern California Edison, Co.*, 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). Merely identifying wherein features of a claimed invention are perceived to reside in disparate references does not establish the requisite motivation. *In re Kotzab, supra*; *Grain Processing Corp. v. American-Maize Products Co.*, 840 F.2d 902, 5 USPQ2d 1788 (Fed. Cir. 1988). Rather, a **specific reason** must be offered based upon **facts** to support the asserted motivation--not generalizations. *Ecolochem Inc. v. Southern California Edison, Co. supra*; *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).

For the reasons set forth above, the asserted basis of provided a “commercial grade” is clearly inadequate as there is no basis for asserting that Awata’s device is not commercial grade.

For all of the foregoing reasons, it is respectfully submitted that the rejected claims are patentable over Awata and the cited Encyclopedia.

V. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987).

Accordingly, as claims 1, 2 and 13 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

In addition, each of claims 1, 2 and 13 recite that the support layer or the protective layer has a glass transition point of 87°C or higher. Both Awata and Cheng appear to fail to disclose this limitation.

VI. Request For Notice Of Allowance

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, an additional petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT, WILL & EMERY

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11/12/03

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